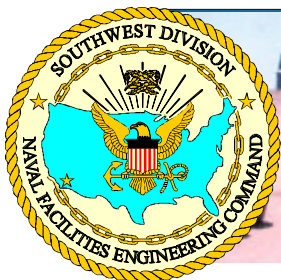




# ***Southwest Division Naval Facilities Engineering Command***

***A Look Ahead...***





# Major Business Lines



## Capital Improvements

03CN

Design and Construction



## Environmental

03EN

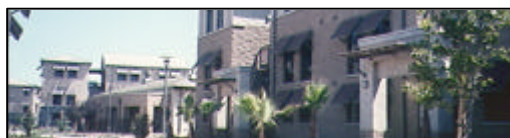
Environmental Compliance, Restoration and Planning



## Planning

03PL

Facilities Planning and Project Development



## Real Estate

03RE

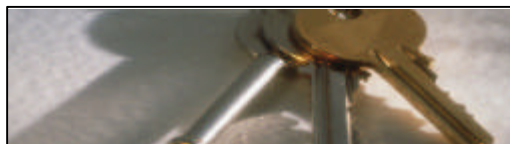
Real Property Management and Public Private Ventures



## BOS

03PW

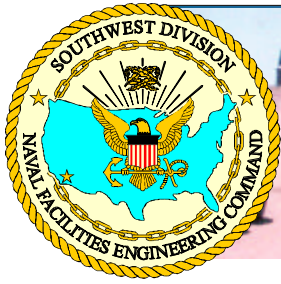
Transportation, Facilities Mgmt, Utilities, Engineering & Consulting Services



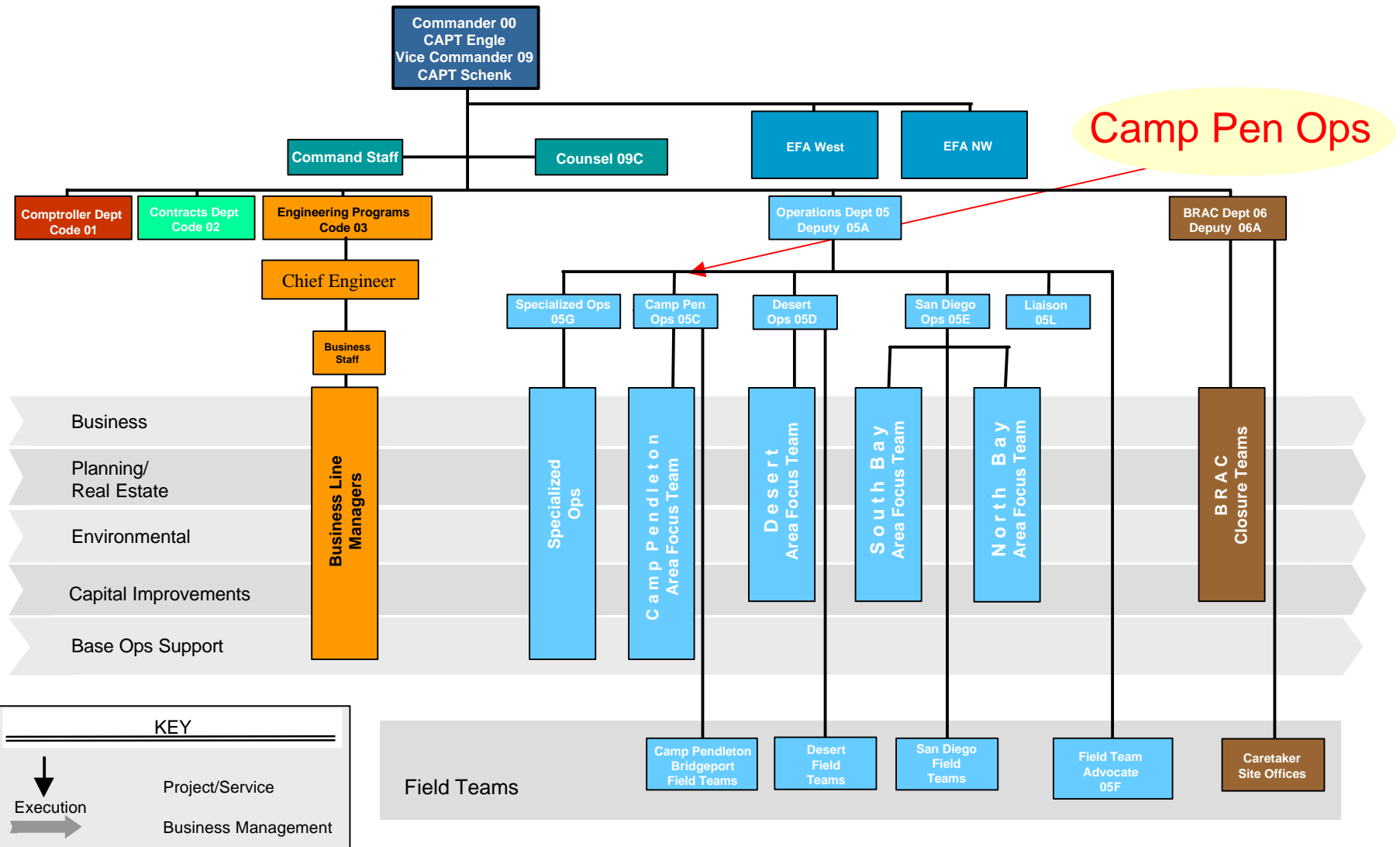
## BRAC

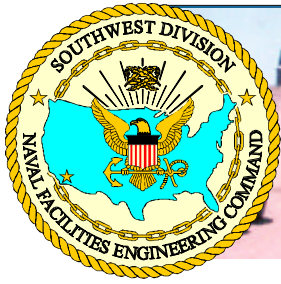
06

Closure, Caretaker

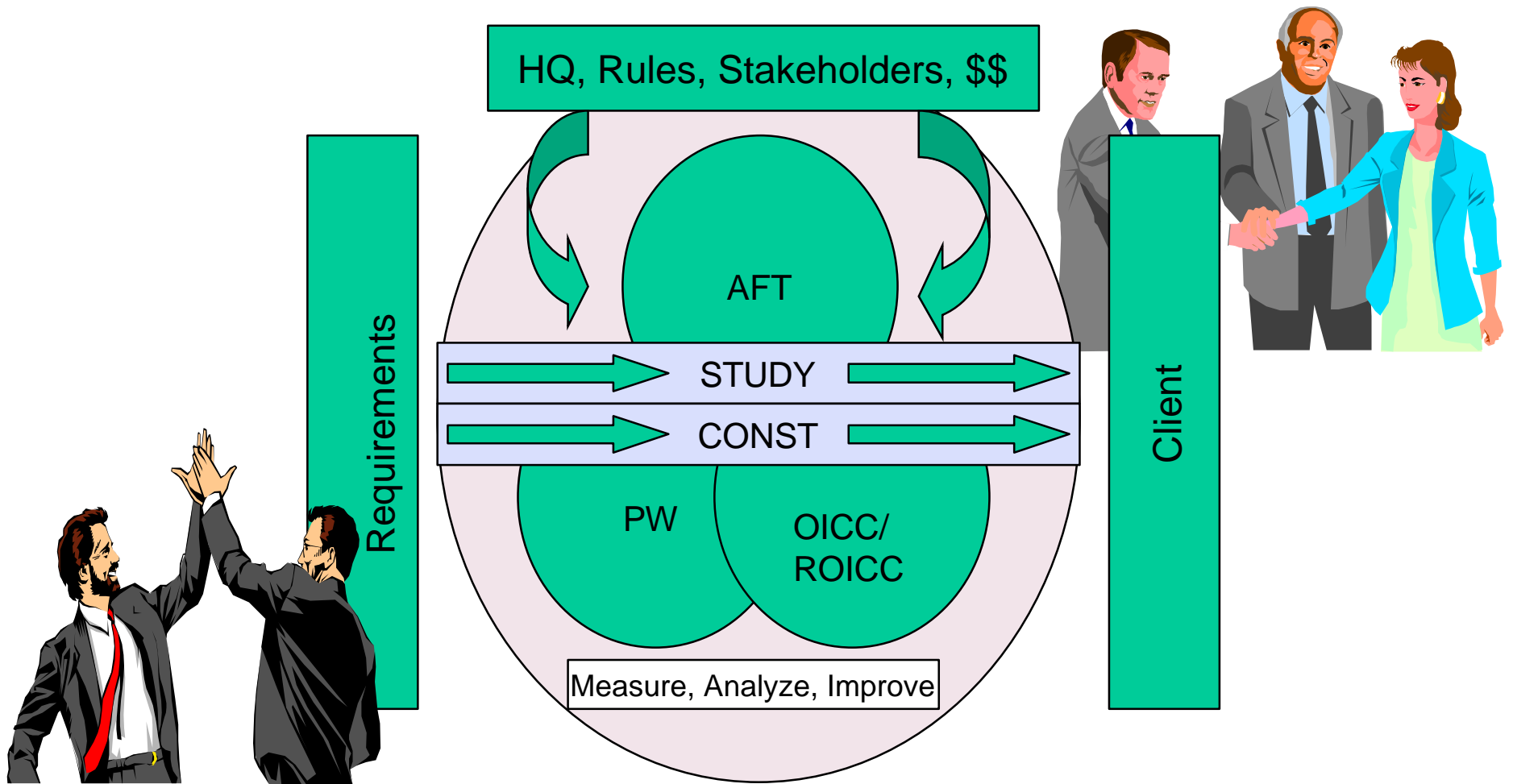


# Org Chart - SWDiv

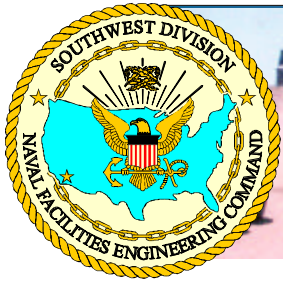




## *PW/AFT/ROICC Integrated Team*



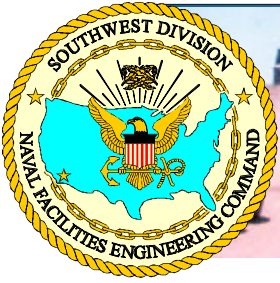




*PW/AFT/ROICC  
Council (PARC)*

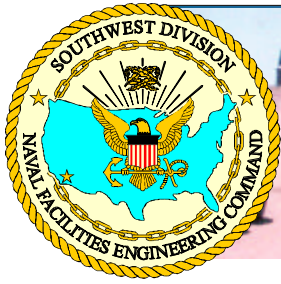
## **PW/AFT/ROICC Council (PARC)**

**“FACILITIES TEAM” MISSION:** TO PROVIDE  
QUALITY FACILITIES AND SERVICES  
THRU EFFECTIVE PLANNING, ENGINEERING  
& ACQUISITION WHICH ANTICIPATE & ARE  
RESPONSIVE TO THE NEEDS OF MARINE  
CORPS BASE, FMF, TENANTS, MARINES,  
SAILORS AND THEIR FAMILIES.



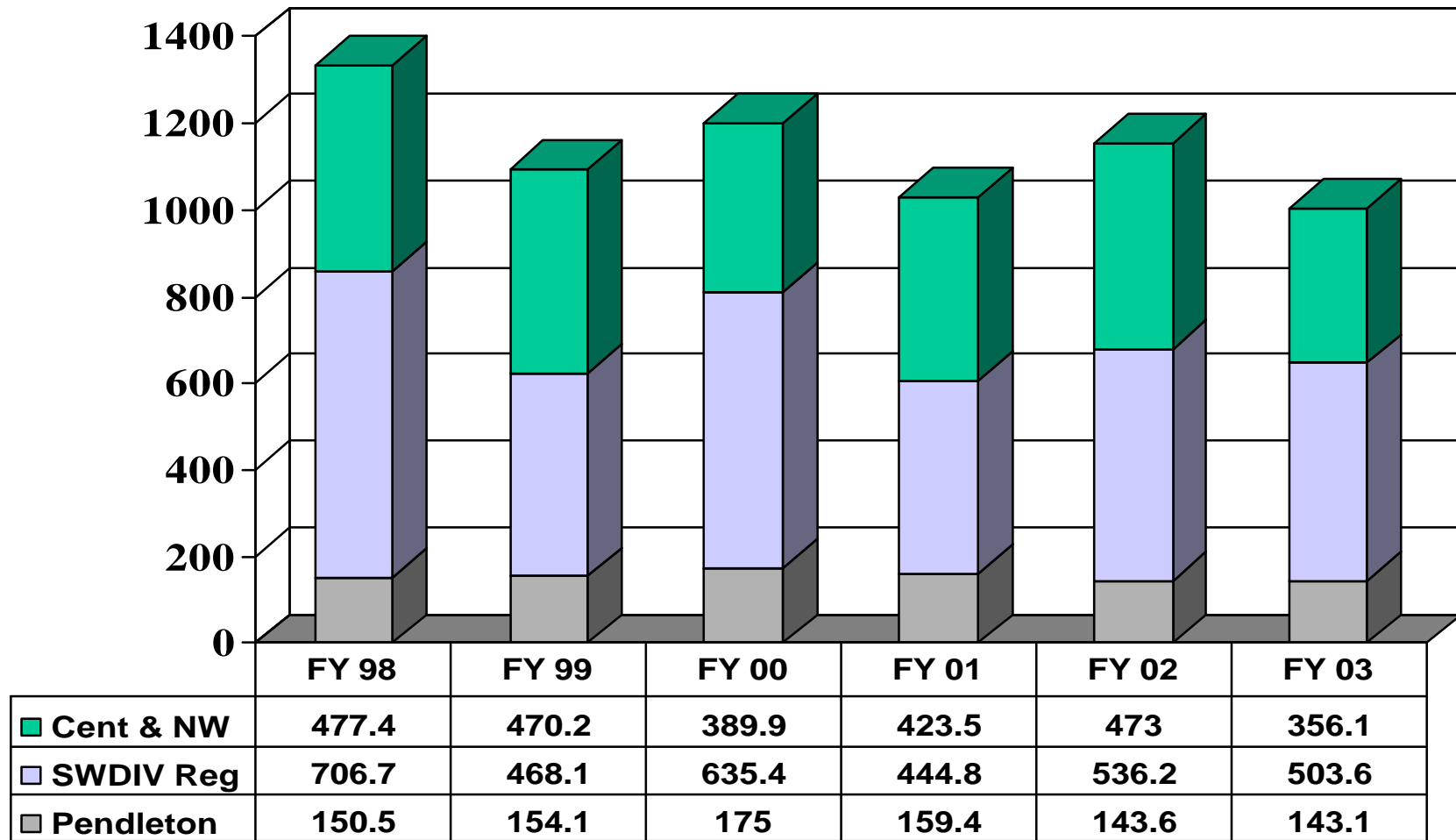
## *Camp Pendleton*

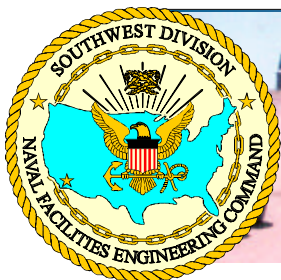
- MCB is home to:
  - I MEF
  - 1st MARDIV
  - MCAS, NAVHOSP, ACU FIVE
  - 40,000 active duty military
- MCB Geography
  - 125,000 acres
  - 17 miles of coastline
  - Home to 18 endangered/threatened species
- Facilities
  - \$2.4B PRV
  - \$150M BMAR
  - 18000 billeting spaces
  - 3900 buildings and structures
  - 520 miles of road
  - 6600 housing units
- % of SW Reg Workload
  - 30% of capital improvements
  - 14% of ERN
  - 20% of utility work



## Camp Pendleton Workload vs SWDIV

Millions

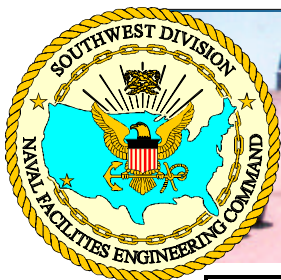




## MILCON Program

FY	PROJ	FND	TITLE	PA	
<b>99</b>	P-024	MCON	BEQ	9,742	X
	P-045	MCON	FITNESS CENTER	3,053	
	P-054	MCON	HOLF	3,784	
	P-999	MCON	BEQ	9,860	X
	P-218	UMC	VERTREP PAD	882	
	P-507	MED	MED/DENT CLINICS - 33	2,976	
	P-508	MED	MED/DENT CLINICS - 62	3,072	X
	H-994	FHIF	SAN ONOFRE HSG RENOV	11,486	
	N-834	NAF	RETAIL CENTER	4780	
	N-927	NAF	CAR WASH, 20 AREA EX	702	
	N-928	NAF	GAS STATION, 20 AREA EX	933	
	<b>TOTAL</b>			<b>51,270</b>	
<b>00</b>	P-029	BRAC	BRAC WRHSE/STOR FAC	5,994	X
	P-022	MCON	TACT VEHICLE MTC FAC	9,010	
	P-063	MCON	SNCO ACADEMY	6,480	
	P-069	MCON	SNCO BEQ	9,740	





## MILCON Program

FY	PROJ	FND	TITLE	PA
<b>FY 00</b>	P-067	MCON	ARMORY DEL MAR	2,620
	P-076	MCON	INTEGR COMM HUB	3,810
	P-516	MCNR	RESERVE TRNG FACILITY	9,940
	P-066	MCON	MEF OPS	6,800
	H-097	FHIF	FORSTER HILLS HOUSE RENOVS	4,418
	<b>TOTAL</b>			<b>58,812</b>
<b>01</b>	P-633	MCON	INFANTRY SQ BATTLE	4,000
	P-634	MCON	ARMOR/ANTI ARMOR	4,100
	H-995	FHIF	SAN ONOFRE WHL HSG REN PH I	24,969
		FHIF	SAN ONOFRE WHL HSG REN PH II	9,030
	<b>TOTAL</b>			<b>42,099</b>
<b>02</b>	P-017	MCON	AIRCRAFT HANGAR IMPRVS	4,240
	P-017	MCON	BEQ, SAN MATEO	20,380
	P-061	MCON	HELO OUTLYING LAND'G FLD	3,700
	P-235	MCON	INDOOR FITNESS CTR	12,770
	P-603	MED	MED/DENT CLINIC LAS FLORES	3,500
	P-604	MED	MED/DENT LAS PULGAS	3,050
	P-605	MED	MED/DENT CLINIC HORNO	3,500
	<b>TOTAL</b>			<b>51,140</b>

X

X

X

X

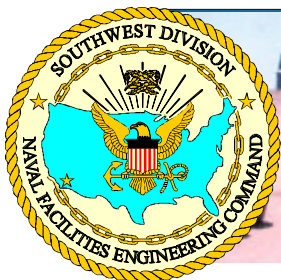
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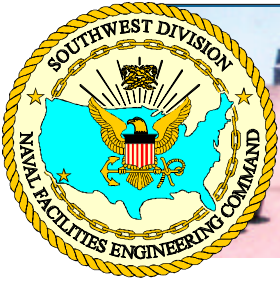
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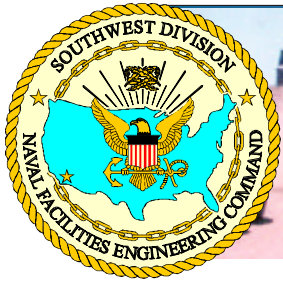
## MILCON Program

FY	PROJ	FND	TITLE	PA	
03	P-011	MCON	AVIATION ARMS SHOP	3,940	X
	P-038	MCON	CONSTR WEIGHT HANDLG SHOP	3,170	X
	P-071	MCON	LOOP FIRE WTR MAINS	1,820	X
	P-038	MCON	AAAV SCHOOL/MAINT FAC	27,300	
	P-093	MCON	BEQ, PICO	15,800	X
	<b>TOTAL</b>			<b>52,030</b>	
04	P-042	MCON	AAAV MAINT FAC	7,100	
	P-044	MCON	BEQ	15,240	X
	<b>TOTAL</b>			<b>22,340</b>	
05	P-032	MCON	MAG 39 HQ BLDG	5,380	X
	P-039	MCON	IMEF SIMULATION CTR	7,300	X
	P-041	MCON	AVTB/DEL MAR BOAT BASIN	2,000	
	P-098	MCON	BEQ	17,350	X
	P-330	MCON	FITNESS CENTER	4,250	X
	P-604	MCON	CHILD DEVELOPMENT CENTER	1,910	X
	<b>TOTAL</b>			<b>38,190</b>	



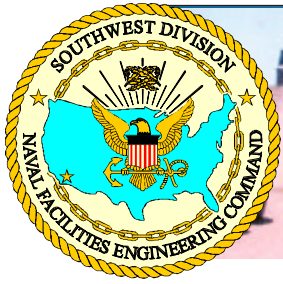
## *Housing PPV*

- Phase I: Privatize 8% of the existing inventory (512 DeLuz units)
  - Replace 312, renovate 200, and construct 200 new units
  - Agreement executed 10 November 2000
- **Phase II: Privatize 50% (3,311 units) of the existing inventory**
  - **Accomplish all renovation backlog on units privatized**
  - **Replace 812 units at Wire Mountain (priority)**
  - **Achieve deficit construction**
  - **Minimize impact to existing residents**
    - **Implement new/replacement construction accordingly**
- Phase III: Evaluate privatization of the remaining existing inventory 42% (2,852 units)
  - Accomplish renovation backlog and deficit reduction, based on requirement and funding availability



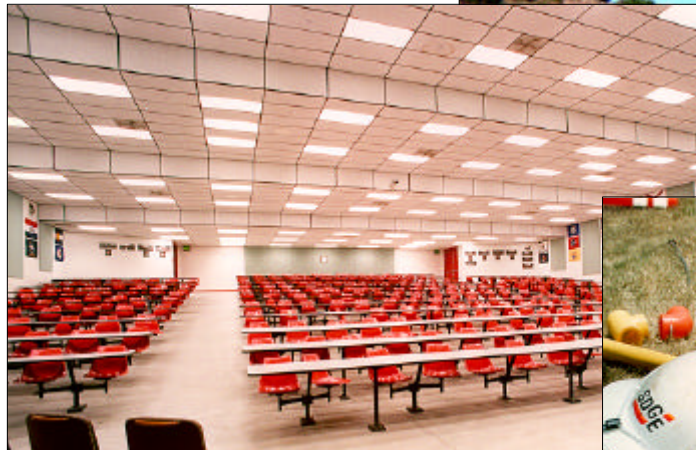
## *Acquisition Schedule*

Endorsement of Concept by Marine Corps	Apr 01
RFQ/RFP substantially complete	Jul 01
Concept & RFQ/RFP approval by DASN(I&F)	Aug 01
Concept & RFQ/RFP concurrence by DUSD(I)	Aug 01
Notify Congress (project)	Sep 01
Issue RFQ/RFP	Dec 01
Notify Congress (funds transfer)	Jul 03
Execute agreement	Sep 03

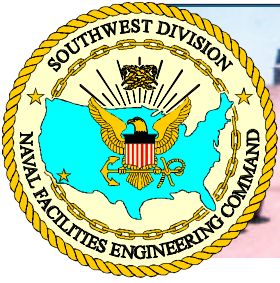


## *UTILITY Systems*

- System modeling, design & construction
- Energy studies & audits
- Privatization







## *Utility Privatization Status*

- Oct 99 - Dec 99 Industry interest assessed
- Electric & Gas RFPs Sep 2001
- Water & Wastewater RFPs May 02
- Sep 03 Target for **GO/NO GO** on UP

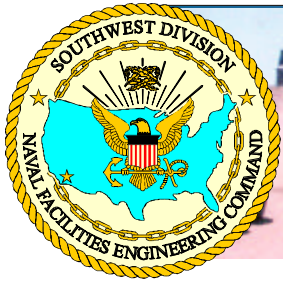


## *Wastewater/water System Recapitalization*

- **CPEN unique problems**
  - produces own water
  - numerous STPs w/ compliance issues
  - little opportunity to reuse effluent
- **Despite repairs/upgrade**
  - secondary effluent technology cannot meet regulatory requirements
- **5-year phased program starting FY 03 or 04 (\$170M)**

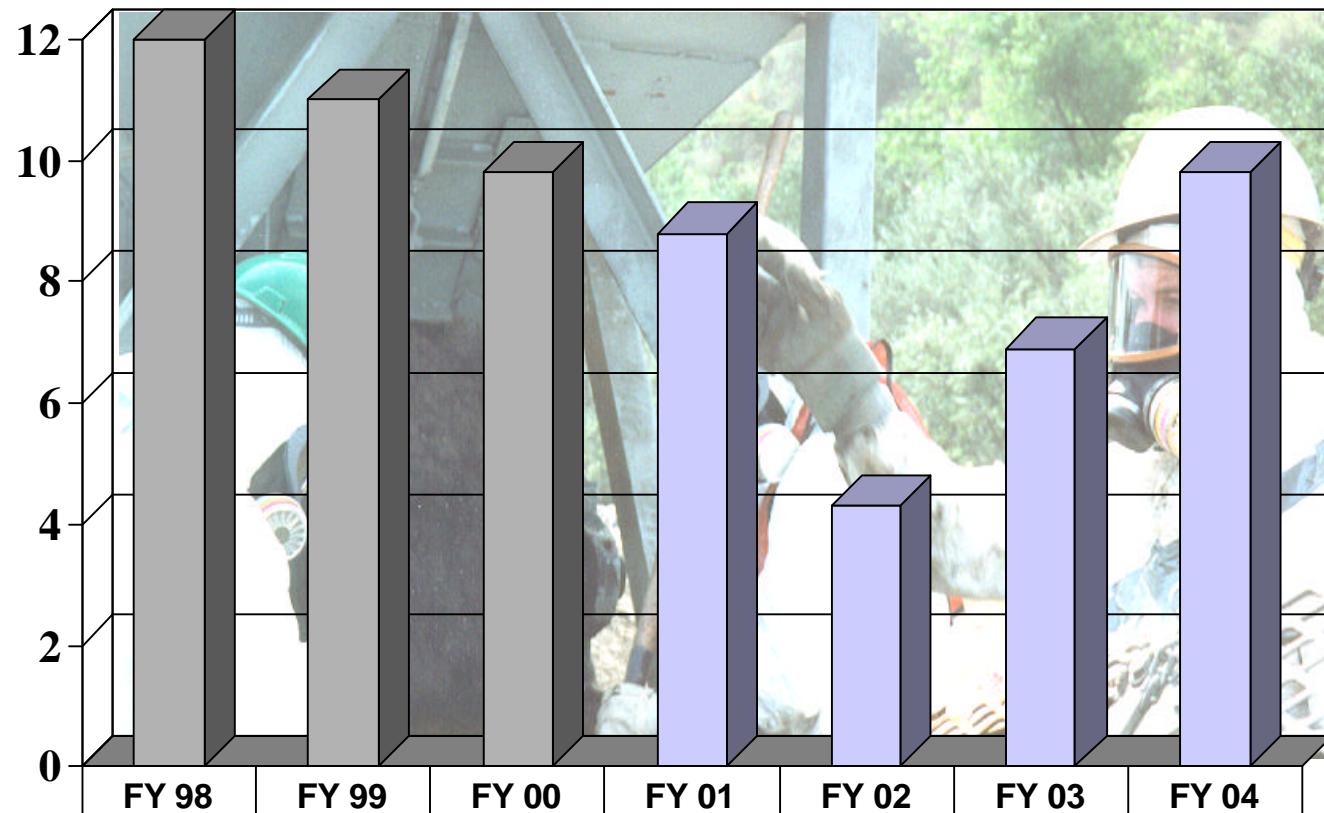




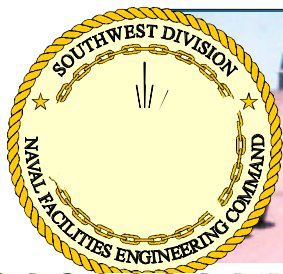


## Environmental Programs

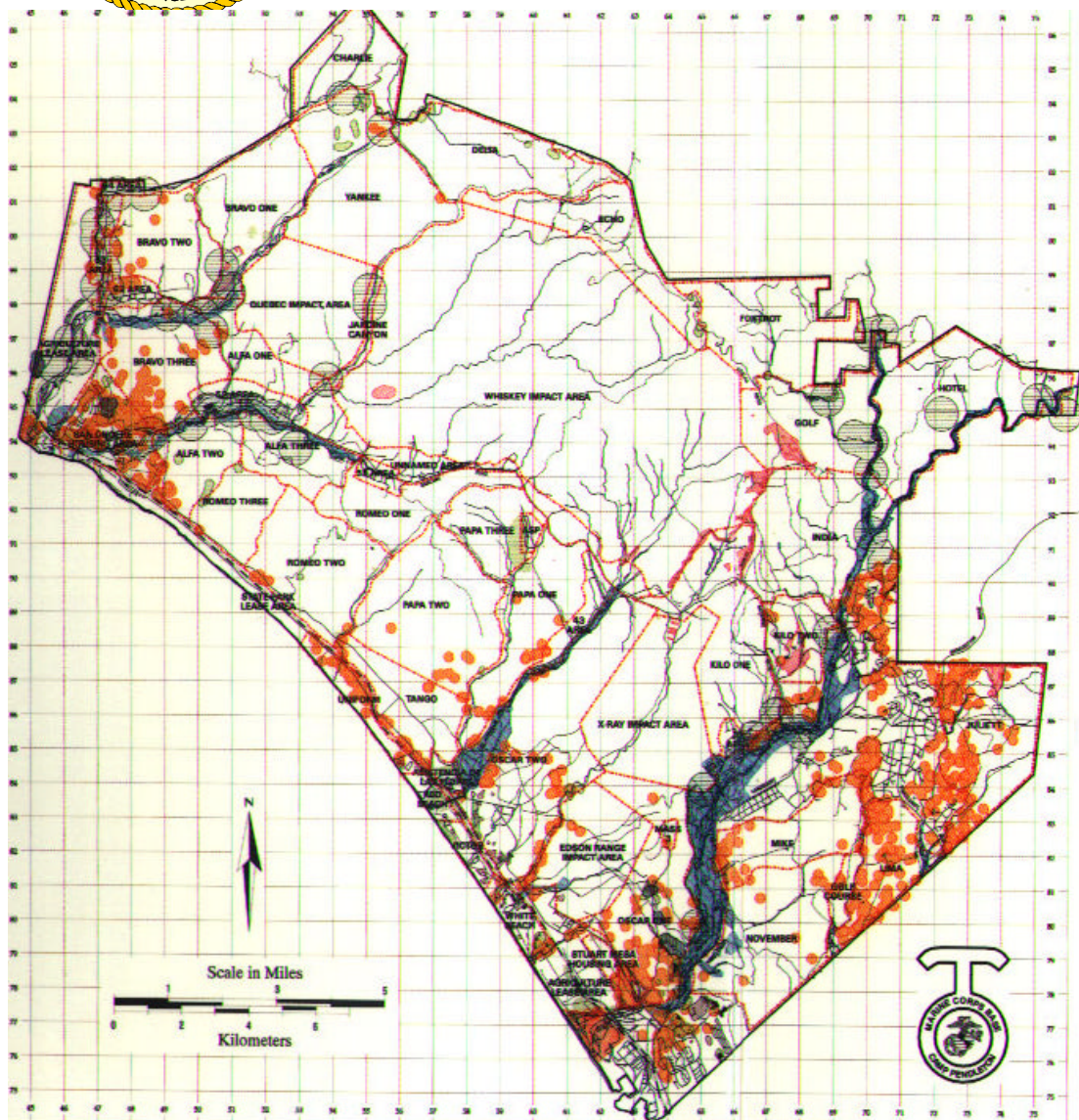
Millions



Projected Funding				8.8	4.3	6.9	9.8
Executed	12	11	9.8				

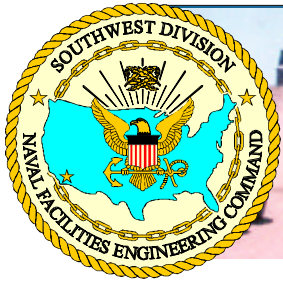


## Environmental Planning



- EIS 1-2 per year; EA 6-12 per year
- 18 endangered species
- Major natural, cultural & historical resources

- Least Bell's Vireo
- Arroyo Southwestern Toad
- Stephens' Kangaroo Rat
- California Gnatcatcher
- Least Tern
- Pacific Pocket Mouse
- Rare Plants
- Vernal Pools



## *Team Pendleton*



*One Team, providing  
Camp Pendleton the best  
in Engineering, Planning,  
and Contracting Services.*

*Faster, Better, Cheaper, Easier*





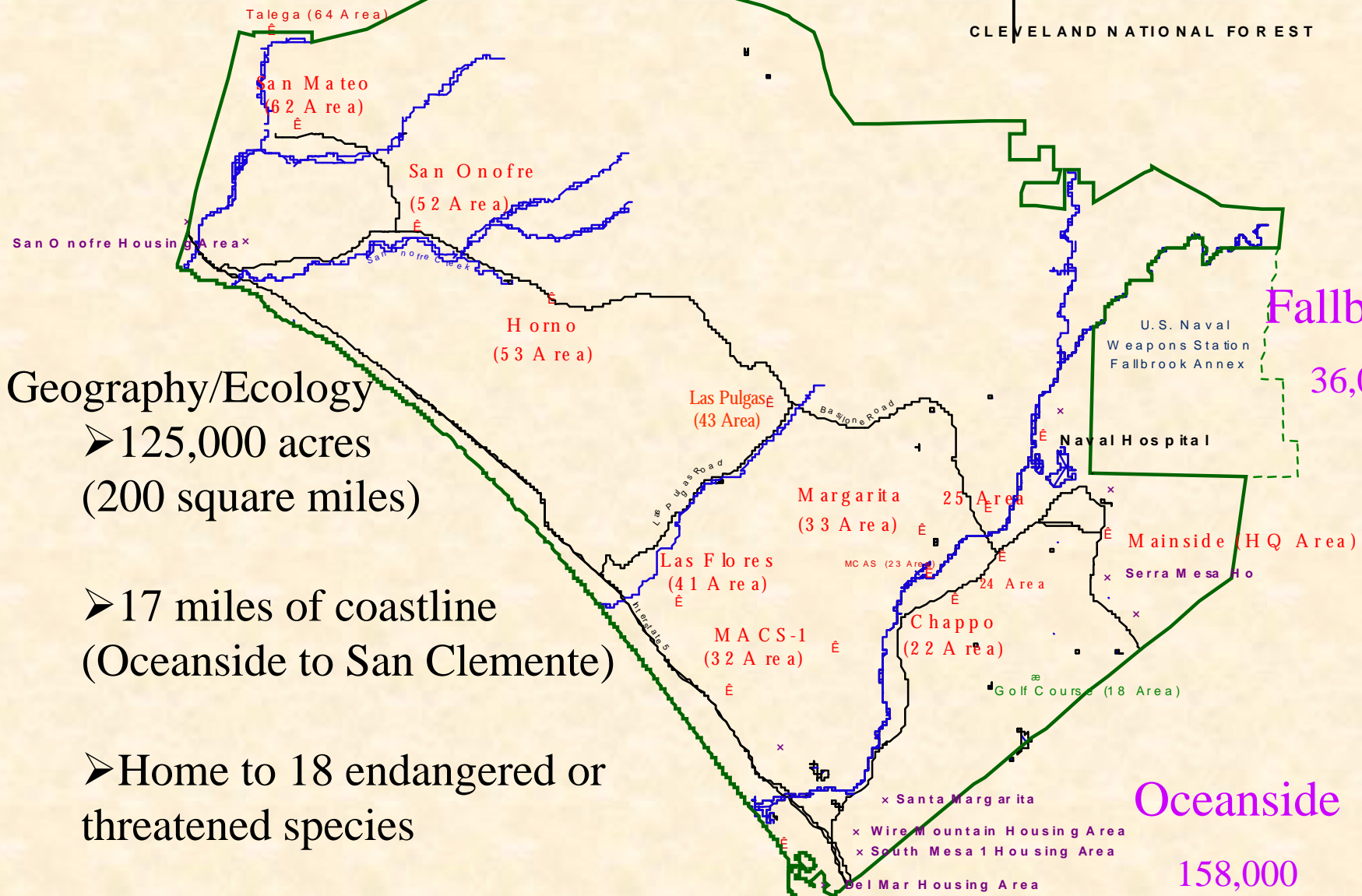
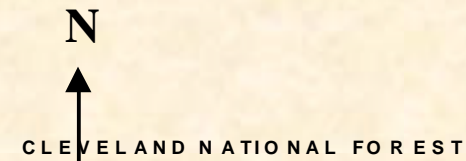
Camp Pendleton is the  
busiest Department of  
Defense installation in the  
United States.



San Clemente

48,000

# Camp Pendleton Orientation



Fallbrook

36,000

## Geography/Ecology

- 125,000 acres (200 square miles)
- 17 miles of coastline (Oceanside to San Clemente)
- Home to 18 endangered or threatened species

Oceanside

158,000



# Facilities Overview

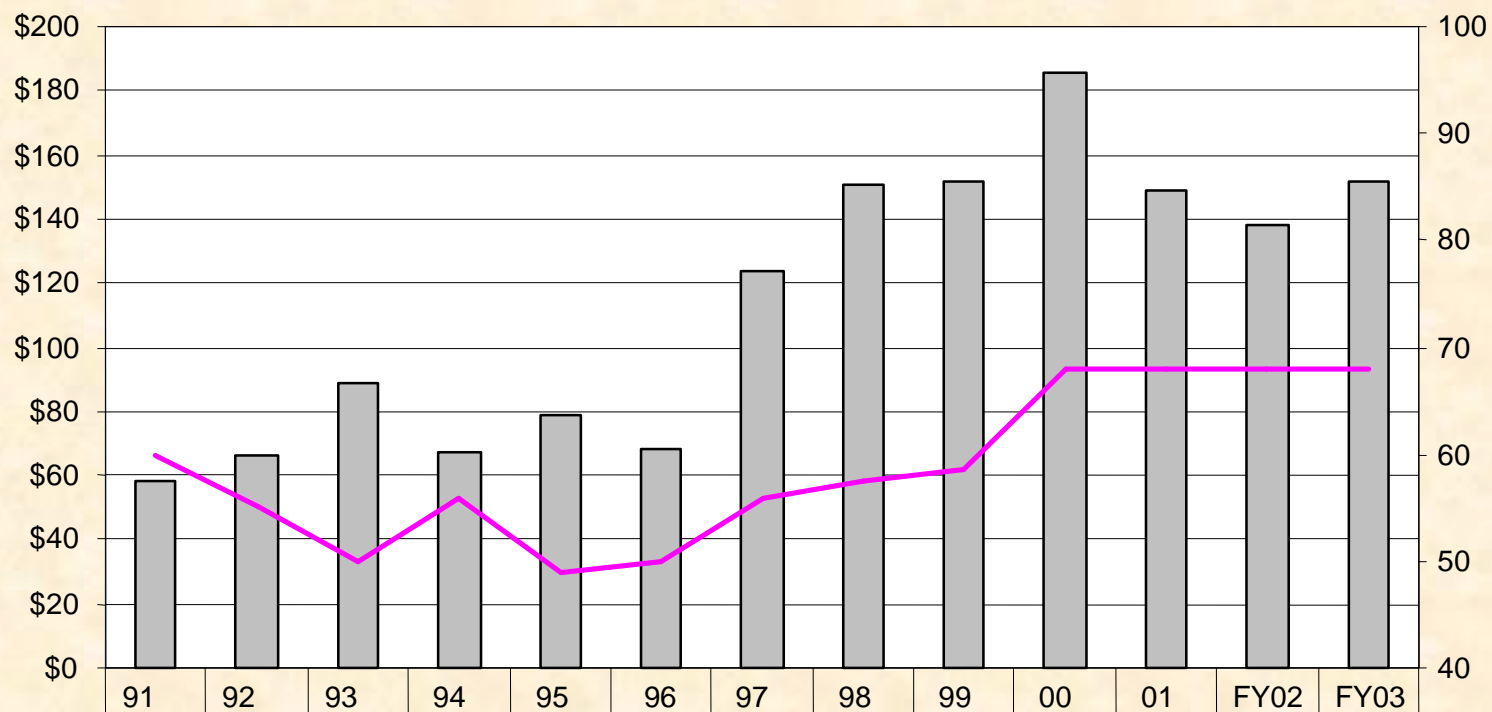


BASE AREA	125,547	ACRES
FAMILY HOUSING	6,230	UNITS
PERMANENT PARTY BILLETING SPACES	18,000	SPACES
BLDGS/STRUCTURES (12,510,000 SF)	3,897	TOTAL
ROADS	530	MILES
RAILROAD TRACK	20	MILES
<b>SEWAGE TREATMENT</b>	<b>9</b>	<b>PLANTS</b>
<b>SEWER MAINS</b>	<b>150</b>	<b>MILES</b>
<b>SEWAGE LIFT STATIONS</b>	<b>49</b>	<b>STATIONS</b>
WATER PRODUCTION	24	WELLS
WATER MAINS	375	MILES
WATER STORAGE	23	RESERVOIRS
STEAM DISTRIBUTION LINES	6	MILES
GAS DISTRIBUTION LINES	145	MILES
ELECTRIC DISTRIBUTION LINES	335	MILES
ELECTRIC SUBSTATIONS	215	STATIONS
BOILERS	487	BOILERS
LANDFILLS	2	LANDFILLS
TOTAL REPLACEMENT VALUE	\$2.9	BILLION
BACKLOG OF MAINTENANCE AND REPAIR	\$139.0	MILLION





# Construction Trend



<span style="color: blue;">■</span> \$ M WIP	\$58	\$66	\$89	\$67	\$79	\$69	\$124	\$151	\$151	\$186	\$149	\$138	\$152
<span style="color: magenta;">—</span> STAFFING	60	55	50	56	49	50	56	57.6	58.6	68	68	68	68



# *Quality is My Metric*







# Sewage Treatment



- Oceanside Outfall
  - \$8M
- Sewage Treatment Plant Upgrades
- Tertiary Treatment Plant

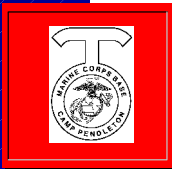




# P-527-B, Sewage Treatment Plant Modifications



**Construct 14.4 miles of pipeline for secondary effluent across MCB Camp Pendleton and through City of Oceanside to their ocean outfall.**



5/10/2001



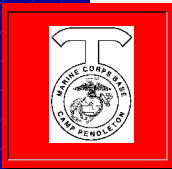


# Modifications to Sewage Treatment Plants



## Complexity:

- Prototype
- Archeological,  
Biological,  
Environmental Rqmts.





# Quality of Life



- New Housing
  - San Mateo Pt
  - Pacific View
  - Rehabs
- BEQs
  - New
  - Rehab
- Gyms
- Retail





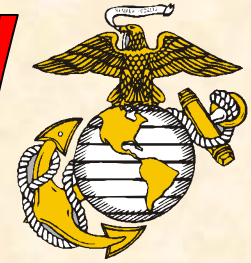




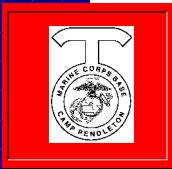




# P-063, Staff NCO Academy



**Design/Build a Staff  
NCO Academy,  
including a separate  
warehouse and armory.**



5/10/2001





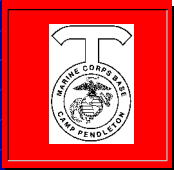
# Public/Private Venture (PPV) - Deluz Housing



**Privatization of 512 existing family housing units and 200 new units on 135 acres.**

## **Lessons Learned for PPV 2:**

- Utilities**
- RFP Development**





## Old Facilities

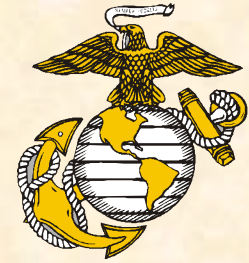


Decade	Number	SF	CPV
1940	655	17,883,840	\$596,300,000
1950 (STPs)	685	3,830,632	\$408,200,000
1960	475	15,527,176	\$454,400,000
1970	471	8,015,434	\$501,700,000
1980	585	5,956,016	\$621,400,000
1990	397	43,844,986	\$334,400,000
2000	28	580,000	\$36,600,000





# The Road to Recovery (FY03-07 Submission)



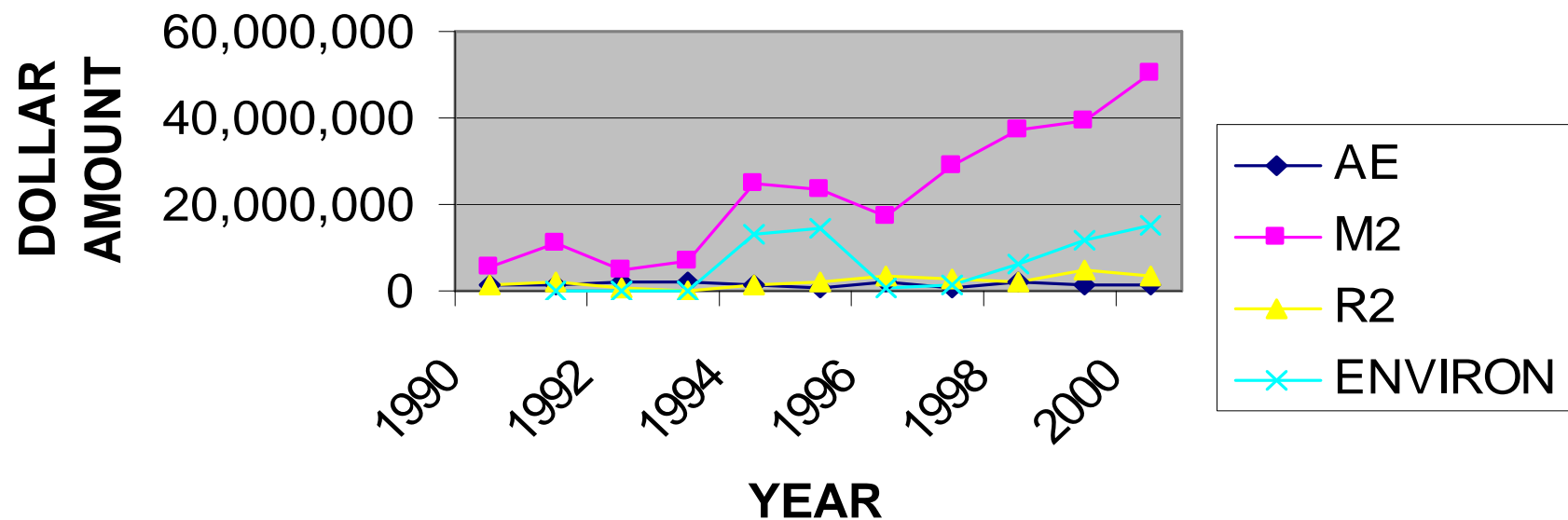
Facility Class	Priority	MCB CPEN	MCON FY97-02	MCON FY03-07
Operational and Training Facilities	2	C-3	7/\$31M	5/\$28M
Maintenance and Production Facilities		C-3	2/\$20M	1/\$27M
Research, Develop, Test and Eval Facilities		C-4		1/\$15M
Supply Facilities		C-3	1/\$3M	
Hospital and Medical Facilities		C-3	N/A	N/A
Administrative Facilities	3	C-4		4/\$49M
Housing and Community Facilities		*C-3	12/\$140M	11/\$164M
Utilities and Grounds Improvements	1	*C-3	1/\$35M	10/\$155M



# M2/R2 Program since 1990



## 10 YEAR FACILITIES PROJECT FUNDING HISTORY 1990-2000





# POM 2004

## MCB Camp Pendleton



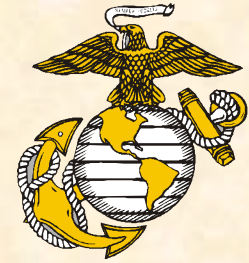
<b>FY 2003</b>		
P-002	Tertiary Treatment Facility (Wastewater Phase 1)	45,330
<b>FY 2004</b>		
P-112	Wastewater Conveyance (WW Ph 2)	31,380
P-068	Raw Water Transmission Pipeline (BW Ph 1)	11,610
P-004	Amphibious Operations Facility, Del Mar	10,800
P-724	RMS Complex, Phase 1 (Artillery Maintenance)	11,427
P-541	MAGTF C4I Integration/Test Fac, MCTSSA	14,870
P-044	BEQ, Headquarters	19,800
P-330	Indoor Fitness Facility, 53 Area	7,600
P-637	Infantry Squad Defense Range	4,690
P-613	Close Combat Pistol Course	1,440
P-008	ISR Camp - Radio Bn	24,530
P-042	AAAV Maintenance Facility, 21 Area	9,875
P-013	Assault Breacher Vehicle (ABV) Facility	4,480
	<b>FY 2004Total</b>	<b>\$ 152,502</b>





# POM 2005

## MCB Camp Pendleton



<b>FY 2005</b>		
P-110	Reclamation for Margarita Basin Sewage (WW Ph 3)	20,290
P-071	Water Treatment Plant/Reservoir (BW Ph 2)	7,130
P-009	ISR Camp, Phase 2 (Intel Bn)	13,410
P-725	RMS Complex, Phase 2 (Motor Transport Maintenance)	10,299
P-098	BEQ, San Mateo (62 Area)	21,720
P-014	BEQ, Headquarters	20,300
P-608	Indoor Fitness Facility, 33 Area	7,440
P-041	AVTB/Del Mar Boat Basin Facilities (AAAV), 21 Area	920
	<b>FY 2005 Total</b>	<b>\$ 101,509</b>



# Wastewater/Water Program Funding Summary



FY03 P-002	Tertiary Treatment Plant (1)	\$45.3M
FY04 P-112	Wastewater Conveyance (1)	\$32.2M
FY04 P-068	Raw Water Transmission (2)	\$10.4M
FY05 P-110	Reclamation for Santa Margarita Basin (1)	\$20.3M
FY05 P-071	Phase II Water Treatment Plant (2)	\$6.4M
FY06 P-006	Demolish STPs 1, 2, 3, 8, and 13	\$5.8M
FY06 P-113	Advance Water Treatment Phase I & II Plants	\$32.3M
FY06 P-072	Water Distribution System Upgrades (2)	\$2.5M
FY07 P-007	STP 9 Connection/Demolition	\$10.0M
FY07 P-079	5 MG Water Reservoir	\$7.9M
Total Program Cost		\$173.1M

These costs are taken from engineering studies, then escalated to appropriate FY, and include contingency, SIOH, etc.

**(1) Class 1 wastewater compliance project.**

**(2) Class 1 water compliance project.**



# P-002, Tertiary Treatment Plant



## REQUIREMENT

- **Reliable, cost-effective sewage treatment capacity in conformance with current and future regulatory requirements.**



- **Tertiary treatment capability and water reclamation, maximizing reuse to protect water rights.**



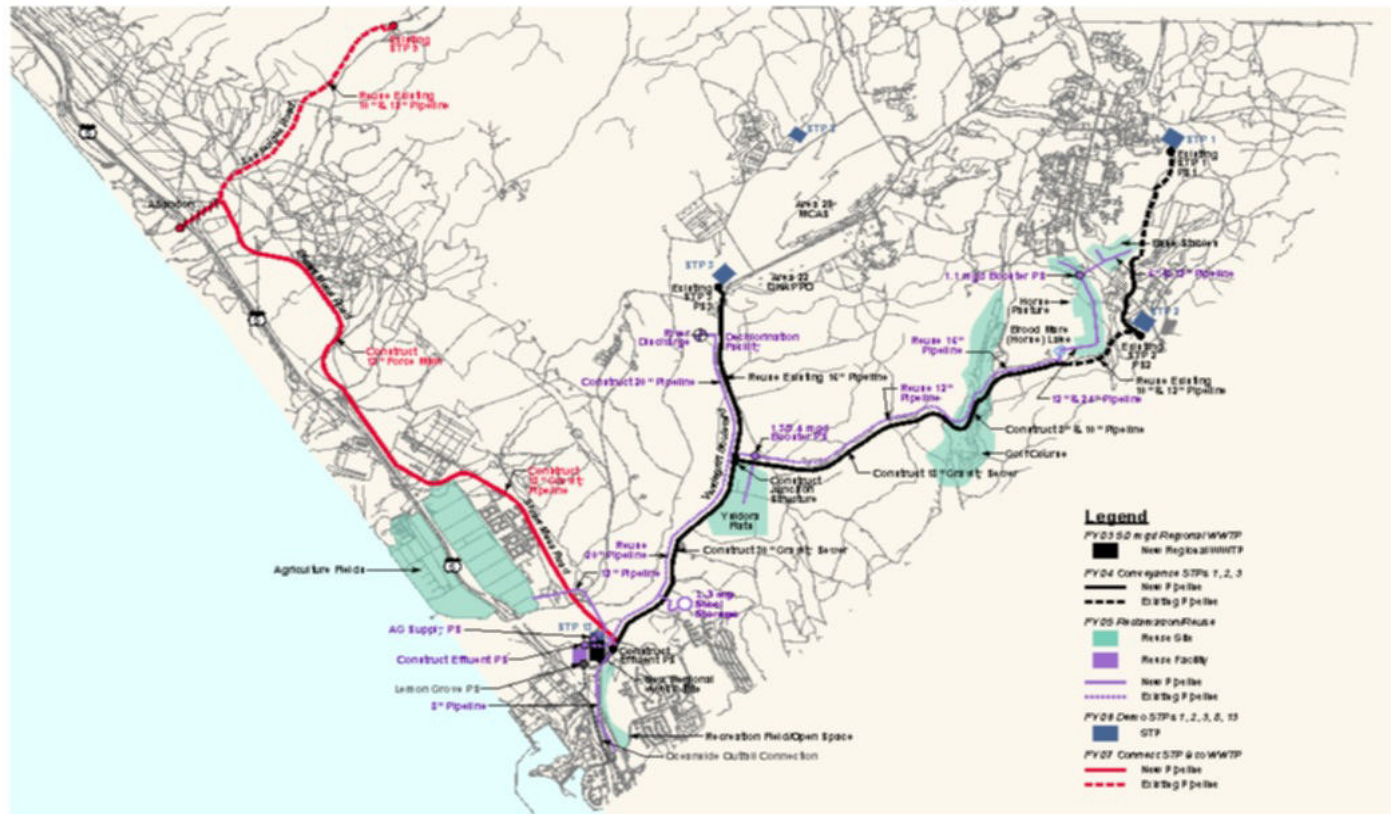


# P-112, Wastewater Conveyance



**REQUIREMENT:** Convey Raw Wastewater to New Plant and to river discharge structure.

## Phased Construction Program





# P-110, Reclamation for Santa Margarita Basin



**REQUIREMENT:** Convey Tertiary effluent to reuse sites.

- Identify and Evaluate Sites for Reuse
  - Southern Part of MCBCP
    - Golf Course
    - Open Space and Recreation
    - Agriculture
    - Vehicle Wash-down
  - CalTrans
  - Neighboring Agencies (Fallbrook, Oceanside)



# P-068, Raw Water Transmission Pipeline P-071, Water Treatment Plant and Reservoir



## REQUIREMENT

- Provide safe, reliable drinking water to MCB customers, including work centers and housing
- First two of five phases
- I/M removal
  - manifold system together
  - Treatment/filtration
  - storage

